

## Vinca alkaloids

### ABSTRACT

Vinca alkaloids are a subset of drugs obtained from the Madagascar periwinkle plant. They are naturally extracted from the pink periwinkle plant, *Catharanthus roseus* G. Don and have a hypoglycemic as well as cytotoxic effects. They have been used to treat diabetes, high blood pressure and have been used as disinfectants. The vinca alkaloids are also important for being cancer fighters. There are four major vinca alkaloids in clinical use: Vinblastine (VBL), vinorelbine (VRL), vincristine (VCR) and vindesine (VDS). VCR, VBL and VRL have been approved for use in the United States. Vinflunine is also a new synthetic vinca alkaloid, which has been approved in Europe for the treatment of second-line transitional cell carcinoma of the urothelium is being developed for other malignancies. Vinca alkaloids are the second-most-used class of cancer drugs and will stay among the original cancer therapies. Different researches and studies for new vinca alkaloid applications will be carried out in this regard.

**Keyword:** Madagascar periwinkle; Vinblastine; Vinca alkaloids; Vincristine; Vindesine; Vinflunine; Vinorelbine.